

DEVICE FOR PREVENTING THE DISPLACEMENT
OF AN OPTICAL ELEMENT

5 Cross Reference to Related Applications

[001] This is a U.S. National Phase entry under 35
U.S.C. § 371 of International Application No.
PCT/EP2004/009326 filed August 20, 2004 which
10 designated the U.S. and at least one other country in
addition to the U.S. and which claimed priority to
German Patent Application No. 103 39 362.5 filed August
27, 2003.

15 Background of the Invention

[002] The invention relates to a device for
preventing the creeping of an optical element, in
particular a lens or a mirror, the optical element
20 being connected to a mount via connecting members
arranged on the circumference of the optical element,
and the position of the optical element in an objective
deviating from the vertical axial position.

25 [003] To date, in semiconductor lithography, optical
elements have been held in a mount by means of various
clamping techniques, clamping in combination with self-
closure and via bonded connections, for example by
gluing. It is generally known that in the case of
30 screwed connections it is necessary to shape the screws
so as to keep the elasticity of the screw shank as low
as possible in order to keep within a tolerable range
the loss of prestressing force owing to setting and
relaxation effects of the shaft. Elements of high
35 elasticity are used with clamped connections or
mechanical coupling points in order to thus minimize
the effects of tolerances during installation, and to